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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,196	01/24/2007	Volker Gallatz	51253	1814

1609 7590 11/12/2009

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EXAMINER
COLEMAN, KEITH A

ART UNIT	PAPER NUMBER
3747	

MAIL DATE	DELIVERY MODE
11/12/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,196	GALLATZ ET AL.	
	Examiner	Art Unit	
	KEITH COLEMAN	3747	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *15-24 and 35* is/are allowed.

6)☒ Claim(s) *25-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward (US Patent No. 4,138,890).

With regards to claim 25, the patent to Ward discloses a microwave source (10, Col. 4, Lines 52, Figure 1) located outside of the combustion space (i.e. interior of chamber 22, See Figure 1) and producing spaced microwave pulses; and a microwave window (i.e. spark plug 20) connected to said microwave source (10) except positively disclosing through which the microwave pulses are injected in and uniformly throughout the combustion space of the engine to be absorbed by fuel uniformly in all of the combustion space with temperature of the fuel being increased uniformly by the microwave pulses when absorbed by the fuel due to energy delivery, without forming of plasma by selection of a time interval for injecting the microwave pulses, of power of the microwave pulses, of pulse duration and of pulse spacing, up to an ignition temperature.

Since Ward explicitly states on Col. 3, Lines 37-45 that "For combustion chambers of arbitrary shape or changing shape, one can optimize coupling of the microwave energy by operating at frequencies with corresponding wavelengths smaller than the chamber dimensions. In this way microwave energy can be radiated out to the flame, and also one or more standing waves, or cavity modes, can be set up which permits the maintenance of continuous high electric fields.", it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the engine of Ward with wherein the microwaves are uniformly distributed in the entire combustion space in order to maintain an equilibrium (Col. 3, Line 46 from Ward)

As to the newly added amendments, Applicant is reminded to see MPEP 2114 regarding functional language.

With regards to claim 26, the patent to Ward discloses wherein the microwave window (20) is mounted on an engine at a combustion chamber thereof.

With regards to claim 27, the patent to Ward discloses wherein said microwave source (10) is connected to an electric power supply source to deliver electrical pulses to said microwave source converted to the spaced microwave pulses by said microwave source (10).

With regards to claim 28, the patent to Ward discloses wherein a coupling between said microwave source (10) and said microwave window (22) transmits the microwave pulses sent from said microwave source to said microwave window (22), but avoids transmitting microwaves reflected by the combustion space back into said microwave source.

With regards to claim 29, the patent to Ward discloses wherein said coupler (24a) is connected to said microwave source (10) and said microwave window (22) by microwave lines.

With regards to claim 30, the patent to Ward discloses wherein said coupler comprises first, second and third ports connected to said microwave source (10), said

microwave window (22) and a passive microwave consumer (16,24a to 28a), respectively.

5. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward (US Patent No. 4,138,890) in view of Ward (US Patent No. 4,297,983).

With regards to claims 31 and 32, the patent to Ward (890) discloses all the limitations of the claimed subject matter except positively disclosing wherein said microwave window comprises ceramic material.

The patent to Ward (983) discloses wherein said microwave window comprises ceramic material (Col. 10, Lines 15-20, See Figure 9).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the microwave window of Ward (890) with wherein said microwave window comprises ceramic material in view of the teaching to Ward (983), in order to lower the resonant frequency (Col. 10, Lines 20-24) and because the modification is invariably a change in material. See MPEP 2144.07. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious);

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward (US Patent No. 4,138,980) in view of Ward (US Patent No. 4,297,983) as applied to claim 11 above, and further in view of Nichol (US Patent No. 2,563,952)

With regards to claim 33, the combination of Ward (US Patent No. 4,138,980) and Ward (US Patent No. 4,297,983) discloses all the limitations of the claimed subject matter including Ward disclosure of wherein the microwave source (10) is connected to the microwave window (i.e. spark plug 20, See Claim 10) by a microwave line (18a).except positively disclosing by a flexible microwave line.

Nichol discloses a flexible microwave line (19, See Figure 2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute the cable of the combination of Ward (US Patent No. 4,138,980) and Ward (US Patent No. 4,297,983) with flexible microwave line in view of the teaching to Nichol, in order to dampen and suppress oscillations commonly generated in an ignition system (Col. 1, Lines 5-10)

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ward (US Patent No. 4,138,980), Nichol (US Patent No. 2,563,952)in view of Ward (US Patent No. 4,297,983) as applied to claims above, and further in view of Ward (US Patent No. 3,934,566, Provided by Applicant)

With regards to claim 34, the combination of Ward (US Patent No. 4,138,980), Ward (US Patent No. 4,297,983), and Nichol (US Patent No. 2,563,952) discloses all the limitations of the claimed subject matter including Ward disclosure of wherein a fuel-air mixture is ignited in the combustion space (i.e. interior of chamber 22) except positively disclosing wherein the engine is a diesel engine.

The patent to Ward (US Patent No. 3,934,566) discloses wherein the engine a diesel (See Col. 10, Lines 40-46) engine.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute the engine of the combination of Ward (US Patent No. 4,138,980), Ward (US Patent No. 4,297,983), and Nichol (US Patent No. 2,563,952) with diesel engine in view of the teaching to Ward (US Patent No. 3,934,566), in order to increase efficiency and/or decrease exhaust emissions of an internal combustion engine (Col. 1, Lines 5-10 from Ward (US Patent No. 3,934,566)).

Allowable Subject Matter

1. Claims 15-24 and 35 are allowed.

Applicant's Arguments

Rejections Under 35 U.S.C. § 103

Claim 25 covers a device for igniting combustion of fuel in a combustion space 5 of an engine 2. The device comprises a microwave source 7 located outside of the combustion space and producing spaced microwave pulses. A microwave window 13 is connected to the microwave source through which the microwave pulses are injected in and uniformly throughout the combustion space of the engine to be absorbed by the fuel uniformly in all of the combustion space with the temperature of the fuel being increased uniformly by the microwave pulses when absorbed by the fuel due to the energy delivery, without forming plasma by selection of a time interval for injecting the microwave pulses, of power of the microwave pulses, of pulse duration and of pulse spacing, up to an ignition temperature.

The device, as claimed, relates to increasing the temperature fuel in the combustion space of an engine by a microwave source injecting microwave radiation in spaced microwave pulses over a large volume in the combustion space. The microwave radiation is in the form of one or more spaced pulses of short duration and high energy. The formation of a plasma is prevented in the combustion space by the choice of the time interval of injection of microwave energy, its power, 'its pulse duration and its pulse space up to an ignition temperature.

[1]None of the cited patents discloses or renders obvious this process or device.

Claims 25-30 apparently stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 4,138,980 (not 4,138,890 as stated in the Office Action) to Ward. The Ward '980 patent is cited for a microwave source 10 located outside the combustion space 22 and producing space microwave pulses, and a microwave window (provided by spark plug 20) connected to the microwave source. The injection of microwave pulses uniformly throughout the combustion space and absorbed by the fuel with the temperature being increased uniformly without the formation of a plasma is alleged to be obvious in view of the disclosure in the Ward '980 patent at col. 3, lines 37-45, based on the allegation that it would be obvious to modify the Ward '980 microwaves for uniform distribution and maintaining an equilibrium. Additionally, it is contended that these features relate to the use of the apparatus and not the structure of the apparatus, and thus, cannot serve to patentably distinguish the claims based on M.P.E.F'. §2114 (copy enclosed). Relative to claim 26, the Ward '980 microwave window 20 is alleged to be mounted on the engine at its combustion chamber. Relative to claim 27, the Ward '980 microwave source is allegedly connected to an electric power supply to deliver electrical pulses to the microwave source converted to microwave pulses. Relative to claim 28, the Ward '980 patent is cited as disclosing the coupling of the microwave source and the microwave window to transmit the pulses and avoid transmitting microwaves reflected by the combustion space back into the source. Relative to claim 29, the Ward '980 patent is cited as disclosing a coupler 24a connected to microwave source 10a and microwave window 22. Relative to claim 30, the Ward '980 patent is alleged to disclose the coupler having first, second

and third ports connected to the microwave source, microwave window and passive microwave consumer 16, 24a-28a.

Claims 31 and 32 stand rejected under 35 U.S.C. §103 as being unpatentable over the Ward '980 patent in view of U.S. Patent No. 4,297,983 to Ward. The Ward '983 patent is cited for a microwave window comprising ceramic material which allegedly would be obvious to provide in the Ward '980 patent.

Claim 33 stands rejected under 35 U.S.C. §103 as being unpatentable over the two Ward patents when further considered in view of U.S. Patent No. 2,563,952 to Nichol. The Nichol patent is cited for a flexible microwave line 19 which is alleged to be obvious to use in the combination of the two Ward patents.

Claim 34 stands rejected under 35 U.S.C. §103 as being unpatentable over the two Ward patents and the Nichol patent when further considered in view of U.S. Patent No. 3,934,566 to Ward. The Ward '566 patent is cited for a diesel engine which allegedly would be obvious to use in the combination of the other two Ward patents and the Nichol patent.

Claim 25 recites a microwave source producing spaced microwave pulses. Although the cited patent of the Ward '980 patent discloses varying frequencies with the corresponding wavelengths, such variation produces standing waves or cavity modes to

maintain high electrical fields. That disclosure does not constitute a microwave pulse or spaced microwave pulses. Cycles of microwave radiation do not constitute pulses that have a definite beginning and end and have a spacing. **[2]The Ward '980 patent involves a continuous supply of radiation to provide the standing waves. In this manner, claim 25 is distinguishable by a microwave source that produces spaced microwave pulses, providing a structural difference between the claimed invention and the Ward '980 patent.**

The Ward '980 patent, cited and applied against the claims of this application, involves a technique for increasing the efficiency of an internal combustion engine by exciting a resonant mode of the engine's combustion chamber. The exciting of the resonant mode in the Ward '980 patent produces standing waves within the combustion chamber (col. 3, line 42; col. 4, line 8). This resonant mode is continuously excited (col. 2, lines 34-36) and uses a continuous wave magnetron (col. 4, lines 51-52). The power level of the radio frequency energy is on the order of 100 watts, i.e., between 10 watts and 1,000 watts (col. 5, line 34-35), particularly 600 watts (col. 7, line 59). In the Ward '980 system, the radio frequency energy is coupled to a combustion plasma air-fuel mixture, preferable at a plasma frequency (col. 2, lines 32-34).

[3]Contrary to the system disclosed in that Ward '980 patent, the present invention involves a device in which the microwave source produces microwave energy in the form of spaced pulses of short duration and time, and not

continuously as in the Ward '980 patent. In this manner, the claimed device is patentably distinguishable over the Ward '980 patent by the source of microwave pulse or pulses. Relative to microwave pulses, col. 3, lines 37-45, the Ward '980 patent is particularly cited. Although this portion of the Ward '980 patent discloses varying frequencies with corresponding wavelengths, such are done to produce standing waves or cavity modes to maintain continuous high electric fields. Such disclosure does not constitute a source of spaced microwave pulses of short time duration and high energy, or teach modifying the Ward '980 patent radiation to provide a device producing spaced microwave pulses, as alleged. Cycles of the microwave radiation do not constitute or teach pulses that have a definitive beginning and end, and a spacing, in contrast to the Ward '980 patent continuous supply of radiation to providing standing waves.

Additionally, the Ward '980 system involves the formation of a plasma. In contrast, the present claimed invention prevents formation of the plasma. **The Ward '980 patent control of frequency/oscillation does not correspond to the control of pulse duration and spacing, as recited in the claims.** The Ward '980 plasma formation further patentably distinguishes the claimed device with its microwave source over the Ward '980 patent.

Further, the present claimed invention includes the microwave source with microwave pulses to increase the temperature of the fuel. **[4]In contrast, the Ward '980 patent only uses radio frequency energy to enhance precombustion**

conditioning, with the ignition being initiated by spark plugs 20. Thus, the claims are further patentably distinguishable over the Ward ' 980 patent by the microwave source increasing of the fuel temperature up to an ignition temperature by microwave pulses.

[5]The claim language relied upon for patentability describes the characteristics of the microwave source. Thus, that language relates to structural features that should be given proper patentable weight.

Accordingly, claim 25 is patentably distinguishable over the Ward '980 patent. None of the other cited patents cure these deficiencies in the cited and applied Ward '980 patent.

Claims 26-34, being dependent upon claim 25, are also allowable for the above reasons. Moreover, these dependent claims recite additional features further distinguishing them over the cited patents.

Claim 26 is further distinguished by the microwave window being mounted on the engine at its combustion chamber. **[6]No such microwave window is disclosed or rendered obvious by the Ward '980 patent. The Ward '980 spark plug 20 is not shown to constitute the claimed window.**

Claim 27 is further distinguished by the claimed electric power supply source delivering electrical signals to the microwave source converted to spaced microwave pulses by the microwave source. **[7]No such structure for generating spaced microwave pulses is disclosed or rendered obvious by the Ward '980 patent.**

Claim 28 is further distinguished by the coupling allowing microwave transmission into the chamber but avoiding transmission of microwaves reflected from the combustion space back into the microwave source. [8]**Ward '980 cylinder 22 does not constitute such a window.**

Claim 29 is further distinguished by the coupler being connected to the microwave source and the microwave window. [9]**Ward '980 high voltage DC block is not shown to be the claimed coupler.**

Claim 30 is further distinguished by the three ports being connected to the microwave source, microwave window and passive microwave consumer, respectively. **[10]No such connection is disclosed or rendered obvious by cylinder 22, distributor 16, blocks 24a-d and power high frequency filters 28a-d of the Ward' 980 patent.**

Claims 31 and 32 are further distinguishable by the microwave window being ceramic material (claim 31) or formed completely of ceramic material (claim 32) within the overall claimed combination.

Claim 33 is further distinguished by the flexible line, within the overall claimed combination.

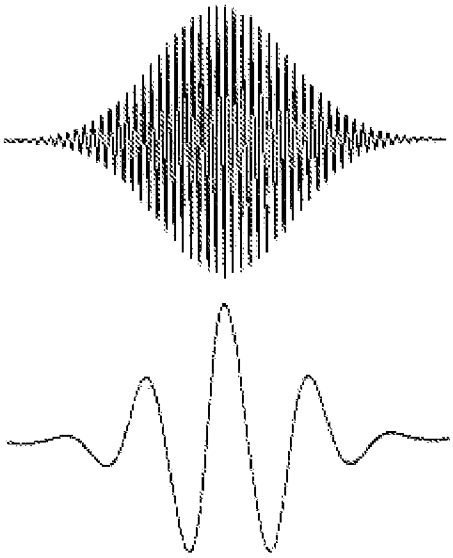
Claim 34 is further distinguished by the particular engines recited therein, within the overall claimed combination.

Examiner's Response to Arguments

With regards to Applicant's first argument, Examiner respectfully disagrees with Applicant's assessment.

With regards to Applicant's second argument, the level of specificity in Applicant's remarks is not found in the claim language. Applicant is reminded to See MPEP 2111. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." Thus, the claim is not limited to such interpretation and the rejection still holds.

Furthermore, Applicant simply elides over the basic components of a waveform. As shown below, ostensibly, changing the frequency of the wave will change the spacing between peaks and the patent to Ward clearly discloses changing frequencies.



With regards to Applicant's third argument, again, the level of specificity in applicant's remarks is not found in the claim language. Applicant contends "**spaced pulses of 'short duration and time'** ," however, Examiner can't find anything in the claim language to positively recite 'short duration and time'. Furthermore, Applicant was reminded to see MPEP 2114, regarding functional recitation.

APPARATUS CLAIMS MUST BE STRUCTURALLY DISTINGUISHABLE FROM THE PRIOR ART

>While features of an apparatus may be recited either structurally or functionally, claims< directed to >**an< apparatus must be distinguished from the prior art in terms of structure rather than function.** >In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (The absence of a disclosure in a prior art reference relating to function did not defeat the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference); see also In re Swinehart, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971);< In re Danly, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "**[A]pparatus claims cover what a device is**, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original).

In addition to MPEP 2145,

VI. ARGUING LIMITATIONS WHICH ARE NOT CLAIMED

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993) (Claims to a superconducting magnet which generates a "uniform magnetic field" were not limited to the degree of magnetic field uniformity required for Nuclear Magnetic Resonance (NMR) imaging. Although the specification disclosed that the claimed magnet may be used in an NMR apparatus, the claims were not so limited.); Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571-72, 7

USPQ2d 1057, 1064-1065 (Fed. Cir.), cert. denied, 488 U.S. 892 (1988) (Various limitations on which appellant relied were not stated in the claims; the specification did not provide evidence indicating these limitations must be read into the claims to give meaning to the disputed terms.); Ex parte McCullough, 7 USPQ2d 1889, 1891 (Bd. Pat. App. & Inter. 1987) (Claimed electrode was rejected as obvious despite assertions that electrode functions differently than would be expected when used in nonaqueous battery since "although the demonstrated results may be germane to the patentability of a battery containing appellant's electrode, **they are not germane to the patentability of the invention claimed on appeal**.").

Thus, structurally, the claimed subject matter does not read over the cited references.

With regards to Applicant's fourth and fifth argument, the patent to Ward (980) explicitly states on Col. 2, Lines 60-65 that

> "In order **to more effectively couple microwave energy** to the flame plasma (and spark plasma where applicable), it is proposed to maintain high electric fields in the vicinity of the flame plasma. It has been realized that this can be accomplished quite easily by operating at electromagnetic wave frequencies with corresponding wavelengths of the order of, and less than, the dimensions

of the combustion chamber, where the chamber is constructed of electrically conductive material."

Thus, Applicant's argument is moot and untenable.

Applicant is reminded to see MPEP 2106 (B), regarding patentable subject matter. As best understood by examiner, the wave or signal is not patentable subject matter.

"For example, a claim reciting only a musical composition, literary work, compilation of data, >signal,< or legal document (e.g., an insurance policy) *per se* does not appear to be a process, machine, manufacture, or composition of matter. >See, *e.g.*, *In re Nuitjen*, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A transitory, propagating signal like Nuitjen's is not a 'process, machine, manufacture, or composition of matter.' . Thus, such **a signal cannot be patentable subject matter**.")."

However, it appears that from the claimed subject matter is an apparatus and thus only requires that the structure distinguish from the prior art. If Applicant still believes that the wave itself is a structure, Applicant is asked to call Examiner to clarify.

With regards to Applicant's sixth argument, Applicant is reminded to See MPEP 2125.

Drawings and pictures can anticipate claims if they clearly show the structure which is claimed. In re Mraz, 455 F.2d 1069, 173 USPQ 25 (CCPA 1972). However, the

picture must show all the claimed structural features and how they are put together. Jockmus v. Leviton, 28 F.2d 812 (2d Cir. 1928). The origin of the drawing is immaterial. For instance, drawings in a design patent can anticipate or make obvious the claimed invention as can drawings in utility patents. **When the reference is a utility patent**, it does not matter that the feature shown is unintended or unexplained in the specification. The drawings **must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art**. In re Aslanian, 590 F.2d 911, 200 USPQ 500 (CCPA 1979). See MPEP § 2121.04 for more information on prior art drawings as "enabled disclosures."

Clearly, the patent to Ward discloses the window and a coupler as claimed in Applicant's specification. Ward explicitly states coupling members on Col. 2, Lines 60-68.

As such, this action is made final.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH COLEMAN whose telephone number is (571)270-3516. The examiner can normally be reached on 5:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Cronin can be reached on (571)272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAC

/K. C./
Examiner, Art Unit 3747

/Stephen K. Cronin/
Supervisory Patent Examiner, Art Unit 3747